

IN THE DRAWINGS

Enclosed are replacement sheets for Figs. 1-19. The replacement sheets are formal drawings for Figs. 1-19.

REMARKS

This responds to the Office Action dated November 15, 2005. Claims 6 and 11 are amended; as a result, claims 1-35 are now pending in this application.

§101 Rejection of the Claims

Claims 6-13 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Claims 6 and 11 were amended to better recite the subject matter. Applicant respectfully requests reconsideration and allowance of claims 6-13.

§112 Rejection of the Claims

1. Claims 6-10 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicant respectfully traverses the rejection.

The Final Office Action dated November 15, 2005 (hereinafter, “the Office Action”) states that the specification does not describe how a “layer” can combine keys into key chains, etc., as a layer is an abstract idea.¹ Claim 6 was amended to better recite the subject matter.

Applicant respectfully requests reconsideration and allowance of claims 6-10.

2. Claims 6-13 were rejected under 35 U.S.C. § 112, second paragraph, for being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claims 6 and 11 were amended to clarify the subject matter of the claims. Applicant respectfully requests reconsideration and allowance of claims 6-13.

§102 Rejection of the Claims

1. Claims 1-3, 5, and 11-13 were rejected under 35 U.S.C. § 102(a) for anticipation by the printed publication "Role Based Access Control Framework for Network Enterprises" by Thomsen, O'Brien and Bogle (“Thomsen”). Applicant respectfully traverses the rejection. Affidavits enclosed herewith are submitted under 37 C.F.R. § 1.131 to establish the inapplicability of using the Thomsen reference. Applicant respectfully requests reconsideration and allowance of claims 1-3, 5, and 11-13.

¹ Office Action, pg. 8 ¶ 19.

2. Claims 1-35 were rejected under 35 U.S.C. § 102(a) for anticipation by the printed publication "Napoleon Network Application Policy Environment" by Thomsen, O'Brien and Payne ("Thomsen"). Applicant respectfully traverses the rejection. Affidavits enclosed herewith are submitted under 37 C.F.R. § 1.131 to establish the inapplicability of using the Thomsen reference. Applicant respectfully requests reconsideration and allowance of claims 1-35.

3. Claims 1-4 and 32 were rejected under 35 U.S.C. § 102(a) for anticipation by "The ARBAC97 Model for Role-Based Administration of Roles" by Sandhu et al. ("Sandhu"). Applicant respectfully traverses the rejection.

The Office Action fails to establish proper *prima facie* anticipation because Sandhu does not teach each all of the elements of claims 1-4 and 32. For instance, Applicant teaches at p. 9, that each security mechanism (e.g., a firewall Access Control List or the mechanism to protect an FTP server on a Unix host) must be described as an abstract representation of rights associated with the security mechanism (the key). Claims 1-4 and 32 state that Applicant's method of defining and enforcing a security policy requires that one encapsulate "security mechanism application specific information for each security mechanism". Applicant is unable to find a teaching or suggestion in Sandhu that would lead one to encapsulate "security mechanism application specific information for each security mechanism" as defined by Applicant and claimed in claims 1-4 and 32. Reconsideration is respectfully requested.

Additionally, the Office Action reads permissions described in Sandhu onto the security mechanisms taught in the present patent application.² The present patent application teaches that a security mechanism encapsulates security mechanism application specific information.³ Sandhu defines a permission as "an approval of a particular mode of access to one or more objects in a system or some privilege to carry specified action."⁴ Thus, the permission of Sandhu does not teach or suggest encapsulating security mechanism application specific information for each security mechanism" as defined by Applicant.

In another example, Applicant cannot find in Sandhu any teaching or suggestion of encapsulating key chains as keys and passing the key chain keys to another semantic layer, as recited in claim 1 and incorporated into claims 2-4 and 32. The Office Action reads the UP-roles

² Final Office Action, pg. 11 ¶ 0025.

³ Patent Application, pg. 6 lines 18-26.

⁴ Sandhu, pg. 107 ¶ 107.

of Sandhu onto the semantic layers of the present patent application. Sandhu describes where creation of a new role requires the specification of its immediate parent and child in the existing hierarchy.⁵ Thus, even if the Office Action was correct in the characterization of a UP-role as a semantic layer, the UP-role of Sandhu does not teach or suggest the flexibility of passing the key chain keys to another semantic layer.

Applicant respectfully requests reconsideration and allowance of claims 1-4 and 32.

§103 Rejection of the Claims

Claims 5-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sandhu, as applied to claim 1 above, in further view of "Issues in the Design of Secure Authorization Service for Distributed Applications" by Varadharajan, Pato and Crall ("Crall"). Applicant respectfully traverses the rejection.

To establish a *prima facie* case of obviousness, one criterion is the prior art reference (or references when combined) must teach or suggest all the claim limitations.⁶ A claim in dependent form shall be construed to incorporate by reference all of the limitations of the claim to which it refers.⁷

Sandhu is described above. Crall describes a RBAC system. Crall describes a system in which entitlements define access rights for principals. Profiles are used to provide the same privileges to groups or classes of principals. In the example given at page 879, an administrator creates a profile called Teller that defines all the privileges granted to bank tellers. A principal that becomes a member of the Teller profile automatically has all the privileges assigned in it. The Examiner stated that privileges "represent authorization to access application-specific resources" and that "entitlements" are "encapsulated privileges" that "represent authority to perform tasks".

As noted above, key limitations of claim 1 are missing from Sandhu and are not shown in Crall. Applicant respectfully suggests that claim 5 is patentable as dependent on claim 1 as described above.

⁵ Sandhu, pg. 124, ¶ 5.2.

⁶ M.P.E.P. § 2143.

⁷ 35 U.S.C. § 112 ¶4.

With regard to claims 6-10, as noted in the discussion of claim 1 above, neither Sandhu nor Crall teach or suggest a security system having “a plurality of semantic layers within a model implemented on the computer network, wherein the two or more of the semantic layers include keys combinable into key chains, the key chains are able to be encapsulated as key chain keys, and the key chain keys are exportable to another semantic layer, wherein each key encapsulates security mechanism application specific information for a security mechanism” as described by Applicant and presently recited or incorporated in claims 6-10.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 371-2172 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date May 15, 2006

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop RCE, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 15th day of May, 2006.

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